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were essentially ignored by the pending and prior rejections. No agreement was reached as to the allowability of the claims.

In this application, claims 1-33 are currently pending. A copy of all claims as currently pending is attached at Appendix A. Claims 1-33 have been rejected under 35 U.S.C. § 103 as obvious in view of U.S. Patent No. 6,389,462 to Cohen et al. ("Cohen") further in view of alleged "well-known" art. Applicants submit that the pending claims are patentable over *Cohen* for the reasons set forth hereinafter, and accordingly request reconsideration and withdrawal of the pending rejections.

Please refer to the prior response for a brief summary of the present application as well as a brief summary of Cohen. The discussion below will not repeat those summaries, but will focus on a discussion of the independent claims in numerical order followed by a discussion of the dependent claims.

Independent Claim 1

Pending claim 1 is presented below for the Office's convenience so that it may be more readily seen that the expressly recited claim elements alleged to be taught by Cohen are in fact not taught by *Cohen*:

A method of controlling access to a desired resource hosted on a destination server, comprising the steps of:

- (a) receiving handshaking packets from a client machine intended to begin a session with the destination server;
- (b) redirecting network communications, including the steps of:
 - redirecting the handshaking packets by rewriting the destination address in the handshaking packets' IP headers to route the packets to an access controlling web server;

receiving a content request packet from the client machine destined for the destination server intended to retrieve the desired resource from the destination server; and
redirecting the content request packet by rewriting the destination address in the packet IP header to route the packet to the access controlling web server;
(c) receiving a response from the access controlling web server; and
(d) controlling access of the client machine to the desired resource based on the response from the access controlling web server.

As in the prior Office action, the rejection focuses on elements (a) and (b), and then briefly mentions (c) and (d) without any real support in any reference. Element (c) calls for retrieving a *response* from an access controlling web server, and element (d) calls for then *controlling* the client machine's access to the desired resource *based on* that response. The action's citation of Cohen does not supply these limitations since, as discussed previously, the technique of *Cohen* does not *control* access at all – access is always *granted*, in the sense that the requested material is delivered transparently to the client.

In the “Response to Arguments” section, the action appears to acknowledge that step (d) requires more than simply granting access. In particular, the action states, in the course of characterizing Cohen in order to reject the claim, that “*If the request is accepted* then it is sent to origin server.” However, although applicants appreciate this acknowledgement that “control” means more than unconditionally granting access any time a request is made, this statement of Cohen’s teachings is technically incorrect. There are a number of fairly apparent issues with respect to the action’s characterization of Cohen, with respect to this element and others. These issues can be more fully appreciated by referring to the specific sections of Cohen that the action later cites for the various claimed steps.

In particular, on page 3 of the action, the Office addresses the limitation of “receiving a response from the access controlling web server,” by citing to the DNS server of Cohen. However, a DNS (Domain Name System) server is simply a name resolution system that allows a client to locate another computer by domain name. The DNS server maintains and references a database mapping domain names to IP addresses. Thus, a DNS server does not perform a function of “controlling” access to anything and is thus clearly not an “access controlling web server” as required in the claim.

Next, the action addresses the step of “controlling access of the client machine to the desired resource based on the response from the access controlling web server.” In particular, the action cites Cohen at column 8, line 59, through column 9, line 18. The cited section is reproduced below, and a review of the cited section will show that it pertains only to packet redirection and has no bearing whatsoever on *controlling* access to a desired resource *based on* a response received from an access controlling web server.

In establishing a TCP connection that is directed to an origin server, client 101-1 first transmits a SYN packet, which is intercepted by proxy redirector 104. Proxy redirector 104 selects a proxy cache, such as proxy 110-1, to redirect this request and creates a connection control block (CCB) to maintain information about the connection. Selection of the particular proxy is determined, as described above, by one of several possible algorithms. The CCB is used to store the client IP address and TCP port number and the origin server IP address and TCP port number, both of which are contained in the IP header of the SYN packet, and the chosen proxy's IP address. The destination address is then changed to that of the chosen proxy and the packet is sent back to the network for redirection to its new destination address of the proxy 110-1. All subsequent packets that originate from the same client with the same TCP port number are then forwarded to the same proxy. Proxy 110-1 responds with an ACK SYN packet which is directed via its destination address to proxy redirector 110-1. Proxy redirector 104 then translates the source IP address and port number to those of the origin server and the destination IP address and port number to those of the client. When the packet arrives at the client the client believes that it is connected to the origin server. The client then responds with an ACK packet to the origin server, which is redirected by proxy redirector 104 to proxy cache 110-1, to complete the handshaking process.

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The Office also generally cites figure 1 of Cohen as supplying this limitation. However, applicants cannot identify from figure 1 what is intended as the recited response or the access control based on that response. If the Office persists in the present rejection of claim 1, clarification is requested. In particular, please identify what in figure 1 of Cohen, and/or in the above-quoted section of Cohen, is alleged by the Office to correspond to “controlling access of the client machine to the desired resource based on the response from the access controlling web server.” More specifically, what is alleged to be the “access controlling web server?” Is it still a DNS server? What is the “response?” Where is the “control” that is based on that response?

Applicants are mindful that the Office may be conscientiously attempting to give the claim its “broadest reasonable interpretation.” However, in the process, the entire limitation of “*controlling access of the client machine to the desired resource based on the response from the access controlling web server*” appears to have been summarily abridged to simply “*granting access*.” Is this the broadest *possible* interpretation? Probably. Is this the broadest *reasonable* interpretation? Not at all. A system that always grants access without question cannot in any sense be said to “control” access as that concept is used in the claim, the specification, and the English language. Moreover, the controlling of access, as recited in the claim, is to be “based on the response from the access controlling web server.” Since the DNS server has been cited as the access controlling web server, and since the DNS server provides no response that is later used to control access to anything, there is no control of

access “based on the response from the access controlling web server.” Moreover, the action’s citation to a bare listing of additional references does cure this deficiency.

Because the cited references contain no teaching pertaining to at least two of the expressly recited elements of claim 1 as discussed above, it is respectfully submitted that a *prima facie* case of obviousness still has not, and cannot, be presented based on Cohen as a primary reference. It is accordingly requested that the rejection of claim 1 be reconsidered and withdrawn. If the rejection is maintained, please note the above requests for clarification in the interest of clear and accurate prosecution.

Moreover, with respect to the rejection of claim 1 applicants further request adherence to the MPEP rules with respect to the manner in which references are to be properly combined under § 103. In particular, the action states that “it would have been obvious... to incorporate the technique of redirection the client request to the destination was well-known in the art into the Cohen’s apparatus in order to facilitate the router on network. Doing so would enhance the security and provide a control access over the persistent connection.” This reasoning or rationale for modifying Cohen is not clear at all. What does “to facilitate the router on network” mean and how is Cohen to be modified to make this happen? How does the proposed modification “enhance the security and provide a control access over the persistent connection?”

Even if the answer to the above questions is that there is some benefit to applicants' claimed combination of elements as gleaned from prior art¹, that would seem to be motivated by applicants' own disclosure. Keeping in mind that essentially every invention is made up of a beneficial combination of known elements, is there a teaching or motivation for combination to be found *in the art*?² Applicants respectfully request clarification via a response to all of the foregoing queries if this rejection is maintained.

Independent Claims 17 and 33

Claims 17 and 33 stand rejected on the same grounds as claim 1. Claim 17 is a Beauregard claim that corresponds substantially to the method of claim 1. Although they are not identical, the relevant element of "controlling access of the client machine to the desired resource based on the response from the access controlling web server" is present as well in claim 17, and the reasoning given for rejecting the claim is identical. For the reasons stated above in applicants' comments regarding claim 1, Cohen teaches neither this limitation nor the predicate limitation of receiving a response, and it is accordingly requested that the rejection of claim 17 be reconsidered and withdrawn.

Turning to claim 33, this claim is an independent claim that was added by way of applicants' prior amendment. Claim 33 recites the following:

¹ This should not be the case since Cohen is substantially devoid of relevant teachings as discussed above.

² Put another way, the examiner has tried to reconstruct the claim by assembling teachings from various references and has purportedly arrived at the very same beneficial combination that the applicants now claim. But--was the act of assembling the various collected teachings motivated by something in the art itself, or was it instead motivated by the fact that applicants had presented, in the form of a claim, a particular combination of elements?

In a computer network environment comprising a client, a hosting server, an access controlling server, and a gateway interposed between the client and both of the hosting server and the access controlling server, a method of controlling access of the client to a desired resource hosted on the hosting server, comprising the steps of:

- (a) receiving at the gateway a request from the client for the desired resource and redirecting the request to the access controlling server;
- (b) receiving at the gateway a permission notification from the access controlling server; and
- (c) controlling access of the client machine to the desired resource based on the content of the permission notification received from the access controlling server.

Although claim 33 bears some resemblance to the other independent claims discussed thus far, it is nonetheless significantly different, rendering it different in scope, and thus the individual limitations of this claim should be considered. For example, as can be seen, the claim recites “(b) receiving at the gateway a permission notification from the access controlling server; and (c) controlling access of the client machine to the desired resource based on the content of the permission notification received from the access controlling server.”

There is no indication in the Office action as to what teaching in Cohen is said to correspond to the recited permission notification, nor what teaching in Cohen is said to correspond to the recited actions taken upon receipt of such a notification. The Office is respectfully requested to address and provide clarification as to what specific teachings of Cohen are alleged to render this claim unpatentable.

Applicants have searched Cohen and the other references of record and have been unable to identify any teachings related to the elements of claim 33, including especially the elements of receiving a permission notification from the access controlling server and

controlling access to the desired resource based on the content of the permission notification. This makes sense given that Cohen's technique does not pertain in any way to granting of permission or controlling of access to resources but instead pertains to simple redirection and service by proxy. Accordingly, it is respectfully submitted that Cohen does not teach each element of claim 33, and it is respectfully requested that the rejection of claim 33 be reconsidered and withdrawn.

The Dependent Claims

Pending claims 2-16 and 18-32 are dependent claims, based on claims 1 and 17 respectively. Each of these dependent claims is patentable for at least the same reasons, discussed above, that the respective base claim is patentable. Accordingly, reconsideration and withdrawal of the rejections on that basis is requested. Moreover, the dependent claims recite additional limitations that further distinguish the claims from the art.

For example, claims 2 and 18 additionally recite that the step of "controlling access to the desired resource based on the response from the access controlling web server further comprises the step of: establishing a connection between the client machine and the destination server if the response indicates that access to the desired resource is allowable." This is not taught anywhere in Cohen. The Office action states that this is an "inherent feature of DNS server." As discussed above, a DNS server provides a look-up function and no more. It does not control access, either by granting or denying access to a resource. In fact, the DNS server typically does not lie between the client and the intended destination (see

Cohen fig. 1) and thus could not exercise any control over that connection. If the Office has knowledge of a reference that indicates that DNS servers normally interfere with the connection between a client and server, an express citation to such a reference is requested in the interest of fair and efficient prosecution. Otherwise, the alleged trait of DNS servers does not appear to be inherent and applicants request that these rejections be withdrawn for this additional reason as well.

As another example, claims 4 and 20 recite that the “response indicates that access to the desired resource is allowable *if* the access controlling web server *does not recognize* the URL of the GET URL packet.” Although the action cites to Cohen (col. 5, lines 10-31) as teaching this element, the cited portion of Cohen says nothing about a server (be it access controlling or otherwise) *failing* to recognize a URL and then *granting* access on that basis. Clarification is requested. In particular, what in column 5 at lines 10-31 is being referred to by the Office action? For the convenience of the reader, the cited portion of Cohen is reproduced below.

The problems associated with the prior art techniques for transparent proxy caching are eliminated by the present invention. In accordance with the present invention, a switching entity, such as the L4 switch (referred to hereinafter as a proxy redirector), through which the packets flow, is provided with the functionalities at the IP level necessary to transform the complete URL in each GET request transmitted by a client to an appropriate absolute URL. Specifically, the IP address found in the destination field in the IP header of the packet(s) from the client containing the GET request are added as a prefix by the proxy redirector to the complete URL in the GET request. As a result, the complete URL in the GET request is modified to form an absolute URL which, when received by the proxy cache, is directly used to determine if the requested object is stored in the cache and, if not, to establish a separate TCP connection to the origin server. The GET request received by the proxy is thus equivalent to what it would expect to receive if it were operating in the non-transparent mode. Advantageously, if a persistent connection is established, each subsequent GET request has the same IP address prefix determined by the initial DNS look-up by the client.

Applicants respectfully submit that nothing in this cited section nor any other section of Cohen teaches the recited limitation. Accordingly, reconsideration and withdrawal of the rejections of claims 4 and 20 is respectfully requested for this additional reason as well.

As yet another example, claims 5 and 21 recite “refusing a connection to the destination server, and establishing instead a connection between the client machine and the access controlling web server if the response is that the access controlling web server recognizes the URL of the GET URL packet.” Although the action states that Cohen teaches this limitation, no particular citation is given, and applicants’ review of Cohen uncovered no such teaching. It is respectfully submitted that Cohen does not teach this limitation, and reconsideration and withdrawal of the rejections of claims 5 and 21 is respectfully requested for this additional reason. If the rejections are maintained, a specific citation to prior art is respectfully requested as such would greatly aid in the fair and expeditious prosecution of these claims.

To keep this response to a reasonable length and to conserve the reader’s time, applicants will not detail every way in which Cohen fails to meet the recited claim limitations of every claim (with respect to those elements for which it is cited). Briefly though, please note the following: (1) contrary to paragraphs 10 and 11 of the action, Cohen does not teach deciding *whether* to redirect based on the content of a handshaking packet (Cohen just redirects in every case); (2) contrary to paragraph 12 of the action, Cohen does not teach that a response “indicates that access to the desired resource is allowable *if* the access controlling web server *recognizes* the URL of the GET URL packet” (As discussed,

Cohen does not address allowability or non-allowability of access at all); (3) contrary to paragraph 13 of the action, Cohen does not teach “refusing a connection to the destination server, and establishing instead a connection between the client machine and the access controlling web server if the response indicates that the access controlling web server does not recognize the URL of the GET URL packet” (Cohen does not address this type of connection refusal and redirection based on nonrecognition of a URL); and (4) contrary to paragraph 14 of the action, Cohen does not teach that the access controlling web server is an RSACi Web Server (Although the action points to Figure 1 to demonstrate inherency, many web servers are not RSACi Web Servers, and in addition figure 1 does not show an RSACi Web Server, so the assertion of inherency is traversed).

With respect to paragraph 15 of the Office action, the action’s allegation of well-known knowledge is traversed as is the asserted combination of art. If the rejection of claims 7, 14, 23, and 30 is to be made under § 103, then it is requested that a rejection under § 103 meeting the requirements of the MPEP for such a rejection be offered. Namely, it is requested that specific citations to references be made to show the claim elements as well as the motivation for combination and any expectation of success. If on the other hand the rejection was intended to be made under § 102, then it is not seen how Cohen teaches the recited additional limitations. Presently, there is no *prima facie* case presented by the action under either § 102 or § 103 and applicants respectfully request for this additional reason that the rejections of dependent claims 7, 14, 23, and 30 be withdrawn.

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Conclusion

The application is considered to be in good and proper form for allowance, and the Examiner is respectfully requested to pass this application to issue.

If, in the opinion of the Examiner, a further telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned attorney.

Respectfully submitted,


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